

# Reducing the Use of Resources in Packaging

## Benefitting the Environment through Packaging Innovation

The Casio Group works mainly through its Packaging Committee to reduce the amount of packaging used, to use recycled resources, and to make packaging smaller. The entire group actively strives to diminish

environmental burden by extending this initiative from improvement of individual packages to the reform of packaging distribution.



Hideki Sakurai, Section Manager  
Packaging Committee Design Center

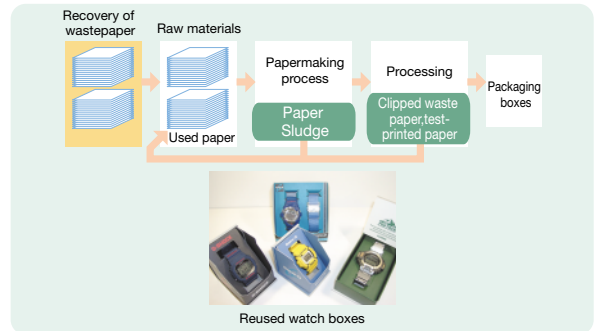
### 1. Packaging-related Environmental Initiatives

- **Cut use of packaging materials**  
Make 20% cut in amount of packaging material used by the end of FY2003 (compared to FY2000).
- **Reduce use of polystyrene foam**  
Switch from polystyrene foam to paper-based materials.
- **Use of recycled resources**  
Actively use recycled paper and resins.
- **Returnable packaging**  
Use same packaging repeatedly (in an effort to eliminate wastes)
- **LCA research**  
Use LCA data to develop packaging with low environmental burden.

### 5. Using Recycled Materials

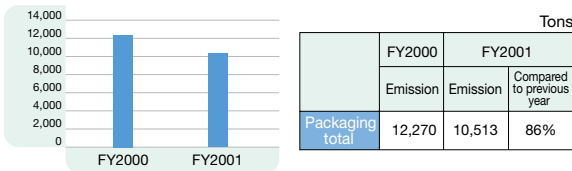
- **Increase use of recycled paper**
  - Increase use of pulp molds
  - Increase use of recycled paper through a closed system\*

#### Increase use of recycled paper through a closed system

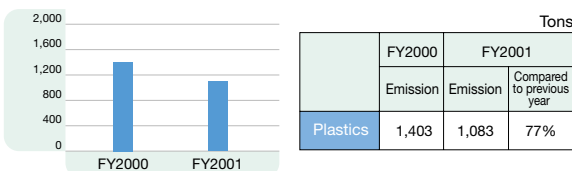


### 2. Total packaging used in FY2001

(Packaging materials used: total emissions of plastics, polystyrene foam, paper, cardboard)

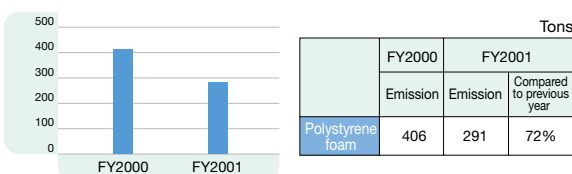


### 3. Amount of resin materials used in FY2001



Resin use cut 50% by changing packaging form and materials.

### 4. Amount of polystyrene foam used in FY2001



Switching from polystyrene foam cushioning material to pulp molds

Since June 2001 we have been recycling documents discarded from the Hamura Research & Development Center and using them as packages for G-SHOCK watches. Paper used in the center for designing and administrative tasks is collected in special recycling boxes and sent to packaging manufacturers, that make it into boxes for products.

For even greater environmental friendliness, we elected not to apply coatings that would make the packaging harder to recycle. Although non-coated paper board has the drawbacks of poor coloring and gloss, we took advantage of those characteristics to produce a design of subdued sophistication.

### 6. Packaging-related LCA initiatives

When designing packaging, we have to consider how serious is the environmental burden produced, give quantitative values to material selection, processing, production, disposal, and other items, and then find ways to decrease them.

Our concrete efforts for this purpose were to calculate LCA values for each packaging type, and create environmental burden determination criteria allowing us to predict the magnitude of environmental burden when designing the packaging.

From now on we shall use that LCA data in further efforts to develop and improve packaging with a lower environmental burden.

## Glossary

### Closed system

This describes a closed loop in which in-house use is made of recycled materials that use Casio-made packag-

ing materials and other items as part of their raw materials.